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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,017	07/31/2003	Olaf Abels	71084	9343
23872	7590	04/05/2005	EXAMINER	
MCGLEW & TUTTLE, PC 1 SCARBOROUGH STATION PLAZA SCARBOROUGH, NY 10510-0827			GARCIA, ERNESTO	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/632,017

Applicant(s)

ABELS ET AL.

Examiner

Ernesto Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6-8, 11, 13, 16, 18, 19, 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 9, 10, 12, 14, 17, 20 and 23-27 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election***

The request for reconsideration regarding the election requirement is acknowledged. This request for reconsideration has been considered and is deemed to be not persuasive. In particular, it is quite clear from a reading of MPEP 1893.03(d) that a species lack of unity is set forth by the identification of the figures and that the mere presence of a generic claim is not evidence of the same inventive concept unless that generic claim is allowable. To date, no generic claim has been found to be allowable.

In regard to PCT Rule 13.1, it should be noted that this rule states that the application shall relate to only one invention or to a group of inventions so linked as to form a single general inventive concept. The Office action of March 24, 2004 clearly indicated species that lacked unity of invention as required by PCT Rule 13.1 and clearly stated why each was considered to lack the same technical features as required by PCT Rule 13.2. In regard to the latter, see page 3, lines 7-8, of the Office action.

Applicants' request for reconsideration fails to point out how the various species presented comply with PCT Rule 13.1. Nevertheless, unless and until there is an

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allowable generic claim, the election requirement for lack of unity-species will be maintained for the reason previously given.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 9, 10, 14, 17, 20 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al., 4,220,418 (see marked-up attachment).

Regarding claim 1, Kondo et al., disclose, in Figure 2, a ball-and-socket joint comprising a housing **22**, a bearing shell **24**, a ball pivot **27**, a sealing bellows **39**, a ball race **41,46**, and a sliding ring **45**. The bearing shell **24** is inserted into the housing **22**. The ball pivot **27** with a joint ball **13** is pivotally mounted in all directions in the bearing shell **24**. The sealing bellows **39** is between the housing **22** and the ball pivot **27**. The sealing bellows **39** has a pivot-side edge area **42**. The ball race **41,46** is fixed on the ball pivot **27** (col. 4, lines 4-8). The sliding ring **45** receives the pivot-side edge area **42** of the sealing bellows **39**. The sliding ring **45** is mounted to slide in the ball race **41,46** and has a sliding face **A9** facing the joint ball **13** arranged adjacent to the ball race **41,46**.

Regarding claim 5, the sliding ring **45** includes an axial extension **A10** and a radial extension **A11**.

Regarding claim 9, the ball race **41,46** has an approximately U-shaped cross section.

Regarding claim 10, the sealing bellows **39** has a surface slidingly in contact with a surface **A20** of the ball race **41,46** (col. 4, lines 10-19).

Regarding claim 14, the sliding ring **45** is a shaped sheet metal part or a plastic molding. The sliding ring **45** receives and holds a portion of the sealing bellows **39** between the axial extension **A10** and the radial extension **A11**. The axial extension **A10** and the radial extension **A11** are substantially perpendicular to each other. The ball race **41,46** is fixed to the ball pivot **27**.

Regarding claim 17, the pivot-side edge area **42** of the sealing bellows **39** forms a thickened material bead pressed against the ball race **41,466** or the sliding ring **45** with an elastic pretension.

Regarding claim 20, the sliding ring **45** has an approximately L-shaped cross section.

Regarding claim 24, Kondo et al. disclose, in Figure 2, a ball-and-socket joint sealing connection comprising a housing **22**, a ball pivot **27** with a joint ball **41,46**, a sealing bellows **39**, a race **41,46**, and a sliding ring **45**. The sealing bellows **39** is connected between the housing **22** and the ball pivot **27**. The sealing bellows **39** has a pivot-side edge area **42**. The race **41,46** is fixed on the ball pivot **27**. The sliding ring **45** receives the pivot-side edge area **42** of the sealing bellows **39**. The sliding ring **45** includes an axial extension **A10** and a radial extension **A11**. The sliding ring **45** is connected to the race **41,46**. Applicant is reminded that the ring **45** is able to slide relative to the race **41,46** to slide and move relative to the race **41,46**.

Regarding claim 25, Kondo et al. disclose, in Figure 2, a ball-and-socket joint comprising a housing **22**, a bearing shell **24**, a ball pivot **27**, a sealing bellows **39**, a race **41,44** and a sliding ring **45**. The bearing shell **24** is arranged in the housing **22**. The ball pivot **27**, with a joint ball **26**, is mounted pivotally in the bearing shell **24**. The sealing bellows **39** is arranged between the housing **22** and the ball pivot **27**. The sealing bellows **39** includes a pivot-side edge area **42**. The ball race **41,44** is fixed on the ball pivot **27**. The sliding ring **45** receives the pivot-side edge area **42** of the sealing bellows **39**. The sliding ring **45** is arranged in the ball race **41,44**. Applicant is reminded that the arrangement of the sliding ring in the race is for sliding movement of the pivot-side edge area and the sliding ring relative to the race.

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Regarding claim 26, the sliding ring **45** has a sliding surface **A9** facing the joint ball **26** and the sliding ring **45** is arranged adjacent to the ball race **41,46**. The sliding surface **A9** of the sliding ring **45** sliding --able to slide-- relative to the race **41,46**.

Regarding claim 27, the sliding ring **45** is able to move relative to the race **41,46** and the ball pivot **27**.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al., 4,220,418, in view of Japanese patent, JP-9-250637.

Regarding claim 12, Kondo et al., as discussed above, fail to disclose the surface of the sealing bellows **39** forming a labyrinth seal together with the surface **A20** of the ball race **41,46**. The Japanese patent teaches, in Figure 5, a surface of a sealing bellows **4**, which is in contact with a surface of a ball race **9**, forms a labyrinth seal (**3a** or **11**) together with the surface of the ball race **9** to prevent debris entering a ball-and-

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socket joint. Therefore, as taught by the Japanese patent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the surface of the sealing bellows forming a labyrinth seal together with the surface of the ball race to prevent debris entering the ball-and-socket joint.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al., 4,220,418, in view of Unterstrasser, 4,305,596.

Regarding claim 23, Kondo et al., 4,220,418, as discussed above, fail to disclose the sliding ring **45** being vulcanized directly to the pivot-side edge area **42** of the sealing bellows **39**. Unterstrasser teaches, in Figure 2, a sliding ring **40** vulcanized directly to a pivot-side edge area **52** of a sealing bellows **50** to make a connection between the bellows and the ring (col. 3, lines 5-7). Therefore, as taught by Unterstrasser, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vulcanize the sliding ring directly to the pivot-side edge are of the sealing bellows to make a connection.

### ***Allowable Subject Matter***

Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



The following is a statement of reasons for the indication of allowable subject matter:

regarding claim 15, the prior art of record does not disclose or suggest a leg of a ball race, which is contact with a sliding ring, having lugs arranged at spaced locations from one another:

### ***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. In particular, the new limitations "mounted to slide in said ball race" recited in line 9 of claim 1, "and slidable relative to said race to slide and move relative to said race" recited in line 9 of claim 24, and "arranged in said race for sliding movement of said pivot-side edge area and said sliding ring relative to said race" recited in lines 9-10 of claim 25 necessitated the new grounds. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 9:30-6:00. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 703-308-2686. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*E.G.*

E.G.

March 31, 2005

Attachment: one marked-up page of Kondo et al., 4,220,418.



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

**Fig. 2**

